**AMENDMENT TO THE CLAIMS:**

This listing of claims will replace all prior versions and listings of claims in the application:

1. (Currently Amended) An albumin fusion protein comprising a member selected from the group consisting of:

(a) an interferon beta protein and albumin, wherein albumin comprises the amino acid sequence of SEQ ID NO:18;

(b) an interferon beta protein and a fragment of the amino acid sequence of SEQ ID NO:18, wherein said fragment has the ability to prolong the ~~shelf-life~~ serum half-life of the interferon beta protein compared to the ~~shelf-life~~ serum half-life of the interferon beta protein in an unfused state;

(c) an interferon beta protein and a fragment of the amino acid sequence of SEQ ID NO:18, wherein said fragment has the ability to prolong the ~~shelf-life~~ serum half-life of the interferon beta protein compared to the ~~shelf-life~~ serum half-life of the interferon beta protein in an unfused state, and further wherein the fragment comprises amino acid residues 1-387 of SEQ ID NO:18;

(d) a fragment of an interferon beta protein and albumin comprising the amino acid sequence of SEQ ID NO:18, wherein said fragment has a biological activity of the interferon beta protein;

(e) a fragment of an interferon beta protein, wherein said fragment of interferon beta has a biological activity of the interferon beta protein, and a fragment of the amino acid sequence of SEQ ID NO:18, wherein said fragment of the amino acid sequence of SEQ ID NO:18 has the ability to prolong the serum half-life of the interferon

beta protein compared to the serum half-life of the interferon beta protein in an unfused state;

([[e]] f) an interferon beta protein, or fragment thereof, and albumin, or fragment thereof, of (a) to ([[d]] e), wherein the interferon beta protein, or fragment thereof, is fused to the N-terminus of albumin, or the N-terminus of the fragment of albumin;

([[f]] g) an interferon beta protein, or fragment thereof, and albumin, or fragment thereof, of (a) to ([[d]] e), wherein the interferon beta protein, or fragment thereof, is fused to the C-terminus of albumin, or the C-terminus of the fragment of albumin;

([[g]] h) an interferon beta protein, or fragment thereof, and albumin, or fragment thereof, of (a) to ([[d]] e), wherein the interferon beta protein, or fragment thereof, is fused to the N- terminus and C-terminus of albumin, or the N-terminus and the C-terminus of the fragment of albumin;

([[h]] i) an interferon beta protein, or fragment thereof, and albumin, or fragment thereof, of (a) to ([[d]] e), which comprises a first interferon beta protein, or fragment thereof, and a second interferon beta protein, or fragment thereof, wherein said first interferon beta protein, or fragment thereof, is different from said second interferon beta protein, or fragment thereof;

([[i]] j) an interferon beta protein, or fragment thereof, and albumin, or fragment thereof, of (a) to ([[h]] i), wherein the interferon beta protein, or fragment thereof, is separated from the albumin or the fragment of albumin by a linker; and

([[j]] k) an interferon beta protein, or fragment thereof, and albumin, or fragment thereof, of (a) to ([[i]] j), wherein the albumin fusion protein has the following formula:

R1-L-R2; R2-L-R1; or R1-L-R2-L-R1, and further wherein R1 is interferon beta protein, or fragment thereof, L is a peptide linker, and R2 is albumin comprising the amino acid sequence of SEQ ID NO: 18 or a fragment of albumin.

2. (Currently Amended) The albumin fusion protein of claim 1, wherein the ~~shelf-life~~ serum half-life of the albumin fusion protein is greater than the ~~shelf-life~~ serum half-life of the interferon beta protein, or fragment thereof, in an unfused state.

3. (Previously presented) The albumin fusion protein of claim 1, wherein the in vitro biological activity of the interferon beta protein, or fragment thereof, fused to albumin, or fragment thereof, is greater than the in vitro biological activity of the interferon beta protein, or fragment thereof, in an unfused state.

4. (Previously presented) The albumin fusion protein of claim 1, wherein the in vivo biological activity of the interferon beta protein, or fragment thereof, fused to albumin, or fragment thereof, is greater than the in vivo biological activity of the interferon beta protein, or fragment thereof, in an unfused state.

5. (Previously presented) An albumin fusion protein comprising an interferon beta protein, or fragment thereof, inserted into an albumin, or fragment thereof, comprising the amino acid sequence of SEQ ID NO:18 or fragment thereof.

6. (Previously presented) An albumin fusion protein comprising an interferon beta protein, or fragment thereof, inserted into an albumin, or fragment thereof, comprising an amino acid sequence selected from the group consisting of:

(a) amino acid residues 54 to 61 of SEQ ID NO:18;

(b) amino acid residues 76 to 89 of SEQ ID NO:18;

(c) amino acid residues 92 to l00 of SEQ ID NO:18;

(d) amino acid residues 170 to 176 of SEQ ID NO:18;

(e) amino acid residues 247 to 252 of SEQ ID NO:18;

(f) amino acid residues 266 to 277 of SEQ ID NO:18;

(g) amino acid residues 280 to 288 of SEQ ID NO:18;

(h) amino acid residues 362 to 368 of SEQ ID NO:18;

(i) amino acid residues 439 to 447 of SEQ ID NO:18;

(j) amino acid residues 462 to 475 of SEQ ID NO:18;

(k) amino acid residues 478 to 486 of SEQ ID NO:18; and

(l) amino acid residues 560 to 566 of SEQ ID NO:18.

7. (Currently Amended) The albumin fusion protein of claim 5, wherein said albumin fusion protein comprises a fragment of albumin sufficient to prolong the ~~shelf-life~~ serum half-life of the interferon beta protein, or fragment thereof, as compared to the ~~shelf-life~~ serum half-life of the interferon beta protein, or fragment thereof, in an unfused state.

8. (Currently Amended) The albumin fusion protein of claim 6, wherein said albumin fusion protein comprises a fragment of albumin sufficient to prolong the ~~shelf-~~

~~life~~ serum half-life of the interferon beta protein, or fragment thereof, as compared to the ~~shelf-life~~ serum half-life of the interferon beta protein, or fragment thereof, in an unfused state.

9. (Previously presented) The albumin fusion protein of claim 5, wherein said albumin fusion protein comprises a fragment of albumin sufficient to prolong the in vitro biological activity of the interferon beta protein, or fragment thereof, fused to albumin as compared to the in vitro biological activity of the interferon beta protein, or fragment thereof, in an unfused state.

10. (Previously presented) The albumin fusion protein of claim 6, wherein said albumin fusion protein comprises a fragment of albumin sufficient to prolong the in vitro biological activity of the interferon beta protein, or fragment thereof, fused to albumin as compared to the in vitro biological activity of the interferon beta protein, or fragment thereof, in an unfused state.

11. (Previously presented) The albumin fusion protein of claim 5 wherein said albumin fusion protein comprises a fragment of albumin sufficient to prolong the in vivo biological activity of the interferon beta protein, or fragment thereof, fused to albumin compared to the in vivo biological activity of the interferon beta protein, or fragment thereof, in an unfused state.

12. (Previously presented) The albumin fusion protein of claim 6 wherein said albumin fusion protein comprises a fragment of albumin sufficient to prolong the in vivo biological activity of the interferon beta protein, or fragment thereof, fused to albumin compared to the in vivo biological activity of the interferon beta protein, or fragment thereof, in an unfused state.

13. (Original) The albumin fusion protein of any one of claims 1-12, which is non-glycosylated.

14. (Original) The albumin fusion protein of any one of claims 1-12, which is expressed in yeast.

15. (Original) The albumin fusion protein of claim 14, wherein the yeast is glycosylation deficient.

16. (Original) The albumin fusion protein of claim 14 wherein the yeast is glycosylation and protease deficient.

17. (Original) The albumin fusion protein of any one of claims 1-12, which is expressed by a mammalian cell.

18. (Original) The albumin fusion protein of any one of claims 1-12, wherein the albumin fusion protein is expressed by a mammalian cell in culture.

19. (Original) The albumin fusion protein of any one of claims 1-12, wherein the albumin fusion protein further comprises a secretion leader sequence.

20. (Original) A composition comprising the albumin fusion protein of any one of claims 1-12 and a pharmaceutically acceptable carrier.

21. (Original) A kit comprising the composition of claim 20.

22. (Withdrawn) A method of treating a disease or disorder in a patient, comprising the step of administering the albumin fusion protein of any one of claims 1-12.

23. (Withdrawn-Currently Amended) The method of claim 22, wherein the disease or disorder <u>is melanoma, a solid tumor, bacterial infection, chemoprotection, thrombocytopenia, prostate cancer, hematological malignancies, hematological</u>

disorder, preleukemia, glioma, human papillomavirus, pulmonary fibrosis, age-related macular degeneration, brain cancer, glioblastoma multiforme, liver cancer, malignant melanoma, colorectal cancer, Crohn's disease, neurological disorder, non-small cell lung cancer, rheumatoid arthritis, or ulcerative colitis ~~comprises indication:Y~~.

24. (Withdrawn-Currently Amended) A method of treating a patient with a disease or disorder that is modulated by an interferon beta protein ~~Therapeutic protein:X~~, or fragment ~~or variant~~ thereof, comprising the step of administering an effective amount of the albumin fusion protein of any one of claims 1-12.

25. (Withdrawn-Currently Amended) The method of claim 24, wherein the disease or disorder is melanoma, a solid tumor, bacterial infection, chemoprotection, thrombocytopenia, prostate cancer, hematological malignancies, hematological disorder, preleukemia, glioma, human papillomavirus, pulmonary fibrosis, age-related macular degeneration, brain cancer, glioblastoma multiforme, liver cancer, malignant melanoma, colorectal cancer, Crohn's disease, neurological disorder, non-small cell lung cancer, rheumatoid arthritis, or ulcerative colitis ~~indication:Y~~.

26. (Withdrawn-Currently Amended) A method of extending the serum half-life ~~shelf life~~ of an interferon beta protein, or fragment thereof, comprising the step of fusing the interferon beta protein, or fragment thereof, to albumin, or fragment thereof, sufficient to extend the serum half-life ~~shelf life~~ of the interferon beta protein, or fragment thereof, compared to the serum half-life ~~shelf life~~ of the interferon beta protein, or fragment thereof, in an unfused state.

27. (Withdrawn) A nucleic acid molecule comprising a polynucleotide sequence encoding the albumin fusion protein of any one of claims 1-12.

28. (Withdrawn) A vector comprising the nucleic acid molecule of claim 27.

29. (Withdrawn-Currently Amended) A host cell comprising the nucleic acid molecule of claim 27 ~~claim 28~~.

30-59. (Cancelled)

60. (New) The method of claim 22, wherein the disease or disorder is hepatitis.

61. (New) The method of claim 60, wherein the hepatitis is hepatitis B.

62. (New) The method of claim 60, wherein the hepatitis is hepatitis C.

63. (New) The method of claim 24, wherein the disease or disorder is hepatitis.

64. (New) The method of claim 63, wherein the hepatitis is hepatitis B.

65. (New) The method of claim 63, wherein the hepatitis is hepatitis C.

66. (New) The method of claim 22, wherein the disease or disorder is multiple sclerosis.

67. (New) The method of claim 24, wherein the disease or disorder is multiple sclerosis.

68. (New) The method of claim 22, wherein the disease or disorder is HIV infection.

69. (New) The method of claim 24, wherein the disease or disorder is HIV infection.

70. (New) The method of claim 22, wherein the disease or disorder is cancer.

71. (New) The method of claim 24, wherein the disease or disorder is cancer.